

WHAT IS CLAIMED IS:

1. (Original) A method for transmitting information using ultra-wide band transmission, the method comprising:
  - allocating, for signal transmission, each of a plurality of frequency sub-bands; and
  - sending an ultra-wide band transmission comprising the information by transmitting a burst symbol cycle signal over each of the plurality of frequency sub-bands.
2. (Original) The method of claim 1, comprising sending at least two of the burst symbol cycle signals serially.
3. (Original) The method of claim 1, comprising sending at least two of the burst symbol cycles in parallel.
4. (Original) The method of claim 1, comprising switching off power to at least one circuit during OFF periods of a transmission to decrease power consumption.
5. (Original) The method of claim 4, comprising maintaining signal frequency and phase from an end of an ON period to a beginning of the following ON period.
6. (Original) The method of claim 4, comprising maintaining signal frequency from an end of an ON period to a beginning of the following ON period.
7. (Original) The method of claim 4, comprising utilizing at least one of an analog wave generator, digital wave generator, and a combination analog and digital wave generator.
- 8.- 11. (Cancelled)
12. (Original) A method for transmitting information using ultra-wide band transmission, the method comprising:
  - allocating, for signal transmission, each of a plurality of frequency sub-bands; and
  - sending an ultra-wide band transmission comprising the information by transmitting a signal over each of the plurality of frequency sub-bands;
  - wherein phase continuity is maintained by:
    - dividing each of the frequency sub-bands into a plurality of segments; and
    - cycling transmission between segments of each of the sub-bands.

13. (Original) The method of claim 12, comprising cycling transmission between segments of each of the frequency sub-bands to produce a signal of substantially uninterrupted phase.

14. (Original) A method for transmitting information using ultra-wide band transmission, the method comprising:

allocating, for signal transmission, each of a plurality of frequency sub-bands; and

sending an ultra-wide band transmission comprising the information by transmitting a signal over each of the plurality of frequency sub-bands, comprising producing at least one analog carrier wave of a frequency sub-band using outputs from a plurality of digital to analog converters.

15. (Original) The method of claim 14, wherein producing the at least one analog carrier wave comprises each of the digital to analog converters outputting a portion of the analog carrier wave based on an input bit, and comprises cycling through input values to produce consecutive segments of the analog carrier wave.

16. (Original) A method for transmitting information using ultra-wide band transmission, the method comprising:

allocating, for signal transmission, each of a plurality of frequency sub-bands; and

sending an ultra-wide band transmission comprising the information by transmitting a signal over each of the plurality of frequency sub-bands, comprising using a sine wave envelope to reduce side lobes in at least one carrier frequency, comprising multiplying a signal by a sine wave of a lower frequency than the carrier frequency.

17. (Original) The method of claim 16, comprising varying pulse bandwidth while pulse repetition frequency remains constant, to facilitate control of signal spectrum characteristics and receiver selectivity.

18.- 24. (Cancelled)